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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,630	03/09/2001	Patrick Warner	923/US/4	7879

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DORSEY & WHITNEY, LLP
INTELLECTUAL PROPERTY DEPARTMENT
370 SEVENTEENTH STREET
SUITE 4700
DENVER, CO 80202-5647

EXAMINER

CROW, STEPHEN R

ART UNIT	PAPER NUMBER
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3764

MAIL DATE	DELIVERY MODE
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06/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/803,630	Applicant(s) WARNER ET AL.	
	Examiner Steve R. Crow	Art Unit 3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 27 February 2008.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 32-40 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 32-40 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 2-27-08.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. Claims 32-38,40 are rejected under 35 U.S.C. 102(b) as being anticipated by Szymiski (4673177) in view of Szymiski (5046723 and Vaughn (5031912).

Szymiski discloses an exercise bicycle comprising:

a frame 10; a means for storing rotational energy 82 supported by the frame, the means for storing rotational energy comprising a flywheel;

a means for driving 20 the means for storing rotational energy; and a means for releasably coupling 91 the means for driving the means for storing rotational energy to the means for storing rotational energy in either one of forward and rearward directions.

Szymiski (177) states in column 4: "Mounted beneath the bearing clutch assembly 86 and immediately below an inset area 90 formed in the lower face of the flywheel, is a second clutch means comprising clutch plate 91 having a annular friction clutch shoe 92 mounted on the upper face thereof for frictionally engaging the inset area 90 of the flywheel. The clutch plate 91 is fixed by the key means 75 to the drive shaft 67 for rotation therewith and a snap ring 94 is engaged in a kerf formed about the circumference of shaft 67 to axially hold the bushing sleeve 76, key 75, clutch plate 91 and flywheel 82 on shaft 67. "

"It will be appreciated that inasmuch as the flywheel 82 is free to move axially with the bushing sleeve 76 along shaft 67, the weight of the flywheel bears against the frictional clutch shoe 92 to regulate frictional engagement of the second clutch means with the

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flywheel. In the normal order of operation with the bearing clutch means 86 locked up, rotation of drive shaft 67 in a driving direction effects conjoint rotation of the flywheel 82 and friction clutch means 91. However, in the instance where reverse torque is applied to the drive shaft 67 to disengage the bearing clutch means 86, frictional slippage of the second clutch means 91 will take place to release the flywheel for freewheeling when the relative torque differential between the friction clutch pad 92 and the rotating flywheel 82 exceeds a predetermined value, determined by the weight of the flywheel and its frictional engagement with pad 92 in the illustrated case. “

Szymiski (4673177) states: “Compression spring means (not shown) also may be mounted between the flanged end of the sleeve member 76 and the underside of the friction clutch plate 91 to provide a regulatable means for adjusting clutch contacting pressure and thus the torque differential required to effect slippage between the flywheel and friction clutch means in accordance with known practice. This latter arrangement is particularly desirable in the event the flywheel is disposed vertically for rotation about a horizontal axis as opposed to the horizontally moveable flywheel illustrated which depends on the gravitational weight of the flywheel to effect the frictional engagement of clutch means 91. “

Vaughn teaches the use of a Bellville washer and states in paragraph 7:”
Steering wheel 12 is mounted onto retaining plate 20 by a cylindrical shaft 22 sized to fit within the passageway in cylinder 19. Shaft 22 has one end threaded and a cap-shaped knob 23 mounted on the other end of shaft. A spacer ring 24 encircles the shaft and rests against the back side of knob 23. Friction clutch plate 25 lies next to spacer ring

24. The steering wheel is next placed upon shaft 22 with its hub 12c against clutch plate
25. A second friction clutch plate 27 is then placed on shaft 22 next to the hub of the steering wheel, followed by a second spacer member 29 and finally a Belleville spring 30.”

This arrangement of parts is similar to applicant's claims 32-35,37-40 . Vaughn's device having a wheel and clutch is analogous to Szymiski's suggestion of a free-wheeling clutch for a flywheel.

In view of Szymiski's (4673177) own teaching along with Vaughn's teaching, it would have been obvious to one skilled in the art to utilize a Belleville spring means in an exercise bike, such as Szymiski (5046723) having a vertically aligned flywheel for adjusting the break-free torque.

As to claims 34-35,37-38 , the examiner contends that utilizing threaded connections is common in the exercise bike art and would have been obvious in Szymiski, modified supra, for securement of the clutch and spring tensioner to the axle.

As to claim 36 , the claim does not recite structure for adjusting the break free force. Rather, the claim merely states that the tensioner is rotatable. This would inherently create a break free force. The examiner contends that the Vaughn et al tensioner may experience a rotation and therefore would change the required break free force.

As to claim 40, the use of an outwardly extending flange circumferential to the axle to center the Belleville washer about the axle housing is considered an obvious design choice well recognized by artisans in the axle and wheel alignment arts.

1. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Szymiski (4673177) in view of Szymiski (5046723 and Vaughn (5031912), as applied to claim 33 above, and further in view of Phaup.

Phaup teaches the use of washers made from polyethylene. Given this teaching, it would have been obvious to one skilled in the art to utilize polyethylene washers for their resistance to rust from user's sweat.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve R. Crow whose telephone number is 571-272-4973. The examiner can normally be reached on Max Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LoAn Thanh can be reached on 571-272-4966. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Steve R Crow/

Primary Examiner, Art Unit 3764